

# **An Estimate of the Benefits and Costs of the Comprehensive AIDS Resources Emergency Act/Health Insurance Premium Payment (CARE/HIPP) Program**

December 2002

California Department of Health Services  
Office of AIDS  
HIV/AIDS Epidemiology Branch  
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# **An Estimate of the Benefits and Costs of the Comprehensive AIDS Resources Emergency Act/Health Insurance Premium Payment (CARE/HIPP) Program**

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## **Executive Summary**

California's CARE/HIPP program is an insurance continuation program funded by the Ryan White CARE Act. The program pays private health insurance premiums for individuals who are disabled and unable to work because of HIV/AIDS. To qualify for CARE/HIPP, an individual's health insurance must be at risk of cancellation due to an inability to pay the premiums. Participants can remain in the program for a maximum of 29 months with an end goal of enrolling in the State's Medi-Cal/HIPP or a County Organized Health Systems HIPP program, returning to work, or becoming eligible for Medicare, whichever comes first. The goals of CARE/HIPP are to maintain clients' health insurance coverage as they transition into the public health system and to reduce the fiscal impact of HIV/AIDS on publicly-funded programs such as the AIDS Drug Assistance Program (ADAP) and Medi-Cal.

This report examines the costs and benefits of the CARE/HIPP program. The analysis assumes that the averted burden on publicly funded programs is defined as the 'benefit' of the CARE/HIPP program. The cost of the program includes personnel, premium payments, and agency reimbursements for enrollment services.

Health care services utilized by CARE/HIPP clients provided the information for estimating the program benefit. To capture this, the Office of AIDS (OA) developed a health care services survey and sent it to all CARE/HIPP benefit counselors. They were asked to survey each individual enrolled or recertified in the program during the months of June, July, and August 2000. The survey questions pertained to health care services received in the prior 30-day period. The first section of the questionnaire pertained to hospitalizations, medical visits, and other health services provided to the clients in the previous 30 days. The second section captured information on the prescription drugs and their dosages taken in the same 30-day period. The benefit counselors forwarded the completed survey to OA. Of the 377 clients enrolled at the time of this study, 50 participated by completing the surveys. This study is based on the input from these 50 surveys. The value of the services received per month by a CARE/HIPP client is estimated at \$841 for medical care and \$1,405 for prescription drugs. This gives an average monthly benefit of \$2,246 per client. The monthly cost of the CARE/HIPP program was determined by calculating staff costs (\$25,235), insurance premium payments to third party providers (\$73,515), and month-end agency reimbursement invoices (MEARI) for enrollment services (\$508). This (cost) was estimated to be \$99,258 for a one-month period.

A total net benefit was calculated by subtracting the costs from the benefits and adding interest to the net benefit. This equates to an averted public expense (net benefit) of \$750,794 per month for all CARE/HIPP clients active in the program at the time of the study (n=377). When divided by the estimated monthly program cost of \$99,258, a benefit to cost ratio of **\$7.56** is calculated. Thus, for every dollar spent on the CARE/HIPP program, it is estimated that \$7.56 in public money is saved.

## I. Introduction

Lack of health insurance reduces access to preventive care, can result in poorer health outcomes, and strains California's "safety net" institutions that provide health care to those without insurance.<sup>1</sup> California's CARE/HIPP program provides continued access to care by paying the health insurance premiums for certain individuals who are unable to work because of HIV/AIDS. The program will pay its client's health insurance premiums for up to 29 months, thereby maintaining their private health insurance coverage while they either return to work or move toward eligibility for other public programs such as ADAP or Medi-Cal. Clients have the benefit of continuity of medical services established under their private health insurance, including access to antiretroviral therapies. Since its inception in 1992, CARE/HIPP has helped over 3,000 individuals maintain their private health insurance by paying their premiums and has also assisted many of them in transitioning onto Medi-Cal/HIPP. The goals of the program are:

- ✓ To support participants in the private health insurance market as they either make a transition into the public health system or return to work,
- ✓ to reduce the fiscal impact of HIV/AIDS on publicly funded programs such as ADAP and Medi-Cal, and
- ✓ to provide continuity of access to therapeutic services, including pharmaceutical treatment, for people with HIV/AIDS.

In 2000, the program expanded its eligibility requirements in an effort to provide services to more individuals diagnosed with HIV/AIDS. Figure 1 outlines the expanded eligibility requirements of the CARE/HIPP program.

### **Figure 1**

#### Expanded CARE/HIPP Eligibility

- Physician diagnosis of HIV/AIDS-related disability.
- Unable to work full time.
- Health insurance coverage that includes outpatient prescription drug coverage and does not exclude HIV-related treatment.

**Figure 1 (continued)**

- Health insurance at risk of cancellation because of an inability to pay the premiums.
- Income does not exceed 400% of the current federal poverty level.\*
- Assets do not exceed \$6,000 (excluding one car and one house). \*\*
- Must have applied for public or private disability benefits (i.e., State Disability Insurance, Supplemental Security Income, Long Term Disability Insurance, etc.) or has appealed any denial of disability benefits.

\*Increased from 250%

\*\*Increased from \$4,000

This report examines the costs and benefits of the CARE/HIPP program. The analysis assumes that public programs, such as Medi-Cal or ADAP, would fund the health care of certain HIV infected individuals if CARE/HIPP was not available to keep their private health insurance premiums current. This averted burden on publicly funded programs is defined as the 'benefit' of the CARE/HIPP program. The cost of the CARE/HIPP program includes personnel, premium payments, and agency reimbursements for enrollment services.<sup>2</sup> In April 2000, the California Health and Human Services Agency, Committee for the Protection of Human Subjects, reviewed and approved the protocol for this study.

## **II. Methodology**

### CARE/HIPP Program Benefits

Costs associated with health care for persons living with HIV/AIDS (PLWH) present a significant financial burden to state and county programs serving people who do not have private health insurance. Continuation of a person's private health insurance lowers the burden on the State's budget. For purposes of this study, the averted burden on publicly-funded programs is defined as the 'benefit' of the CARE/HIPP program.

To estimate the benefit of CARE/HIPP, the value of the services received from a client's private health care provider had to be determined. The OA designed a survey to gather health care service information from the CARE/HIPP clients (Appendix A). The survey divided health care services into two categories: prescription drugs and medical care. English and Spanish versions of the health care services survey were sent to all of the CARE/HIPP benefit counselors. During June through August 2000, as they were either enrolled, re-certified, or dis-enrolled in the program, clients were surveyed on their health care services received

during the prior 30-day period. To encourage participation, each respondent received a \$20 Safeway food voucher upon completion of the survey.

These surveys provided the basis for calculating the benefits of the CARE/HIPP program. The health care reported by the CARE/HIPP clients was funded by private insurance and represented a decrease in the need for programs such as ADAP or Medi-Cal. The benefit of the program was measured by capturing the service utilization patterns of clients and estimating what these services would cost if funded by ADAP and/or Medi-Cal.

### CARE/HIPP Program Costs

The OA administers the CARE/HIPP program. OA personnel, premiums paid to health care providers, and reimbursements to agencies for services including enrollment, recertification, and transitions to Medi-Cal/HIPP were included in the estimate of program costs.

The personnel cost estimate was for five full-time OA staff members. Responsibilities include processing health insurance payments and overseeing the client enrollment, dis-enrollment, and recertification progression. Staff salaries, including benefits and indirect costs, were used to calculate the total monthly personnel cost for the CARE/HIPP program.

Using the CARE/HIPP Client Tracking and Reporting System, health insurance premium payments were totaled for each of the 50 surveyed clients. A monthly average was then estimated and applied to the 377 active clients giving a total monthly cost for health insurance premium payments.

The agencies responsible for enrolling clients are reimbursed \$25 for each client enrolled in CARE/HIPP and \$25 each time a client is recertified. Also, agencies are reimbursed \$100 for each client who transitions to the Medi-Cal/HIPP program within 12 months and \$75 if the transition is over 12 months from their enrollment in CARE/HIPP. The CARE/HIPP Client Tracking and Reporting System was queried to calculate the average monthly reimbursements made for each CARE/HIPP client. This amount was applied to the 377 active clients giving a total monthly cost for agency reimbursements.

### **III. Results**

CARE/HIPP benefit counselors see approximately 60 individuals each month for enrollment services.<sup>3</sup> During the three-month health care services survey period, 50 surveys were completed and forwarded to the OA (28% response rate). The majority of respondents



were male (96%), which was similar to the percentage of males in the current population of active clients (95.2%). There were 35 (70%) white respondents, which is slightly higher than the active population percentage of 63.8%. Clients over the age of 30 accounted for 98% of the returned surveys compared with 94% for the active population of the same age. Because CARE/HIPP clients are primarily working age, very few respondents (2%) were under age 30. Table 1 provides the demographics on the surveyed clients and compares them with the CARE/HIPP clients who were active at the time of the survey.

**Table 1**  
**CARE/HIPP Active Client Comparison with**  
**Client Survey Respondents by Race, Gender, Age**

	<b>Active Clients (n=377)</b>	<b>Surveyed Clients (n=50)</b>
<b><u>Race</u></b>	<b><u>%</u></b>	<b><u>%</u></b>
White	63.8	70.0
Hispanic	17.8	14.0
Black	8.0	8.0
Other	5.9	4.0
Asian/Pacific Islander	4.5	4.0
<b><u>Gender</u></b>	<b><u>%</u></b>	<b><u>%</u></b>
Male	95.2	96.0
Female	4.8	4.0
<b><u>Age</u></b>	<b><u>%</u></b>	<b><u>%</u></b>
Under 21	1.6	0
21-30	4.3	2.0
31-40	39.9	48.0
41-50	36.1	36.0
Over 50	18.1	14.0

To estimate the benefit of CARE/HIPP, we examined the health care services received from the 50 surveyed clients' private insurers and then estimated what those same services would cost if they had been funded by ADAP and/or Medi-Cal. The estimation of these services and the assumptions underlying them are described below.

- *Prescription Drugs*

The information on the drugs and their dosages taken by each of the 50 surveyed clients was used to calculate an average monthly cost of drugs. This cost was then applied to the CARE/HIPP population of active clients. An average cost per pill was calculated for each of the drugs reported on the completed questionnaires.<sup>4</sup> The pharmaceutical costs were

provided by OA, HIV Care Branch, ADAP Section. These costs were based on a 2000 First Data Bank report. First Data Bank is the world's leading supplier of healthcare knowledge bases, supplying drug knowledge to over 40,000 pharmacies, 4,000 hospitals, all 50 state Medicaid programs, and virtually all major vendor and private drug benefit programs. We assumed that these costs reflect the current Medi-Cal cost of drugs. The average price per pill was then applied to the client's reported dosage for a 30-day period. For example, a CARE/HIPP client reported taking two pills per day of the protease inhibitor 'Indinavir.' We estimated the cost of Indinavir at \$2.79 per pill. Two pills per day x \$2.79 x 30 days = \$167.40 per month for Indinavir for this client. This subtotal and the amounts for other drugs taken by this individual were summed to create an estimate of the cost of drugs taken. Using this method, the total monthly average for prescription drugs was estimated to be \$1,405 per CARE/HIPP client. Because CARE/HIPP clients must be diagnosed as disabled due to HIV/AIDS, we expected that their drug care costs would be higher than the \$1,162<sup>5</sup> average ADAP expenditure per month for individuals with HIV disease. Appendix B provides information on the drugs reported on the 50 client questionnaires.

- *Medical Care and Counseling Visits*

The estimation of the costs associated with medical and counseling were computed as follows:

Inpatient Care: Clients were asked how many days in the last 30 days they were cared for in a hospital. Expenditures per day of \$1,102 were used to estimate the value of services for hospitalization.<sup>6</sup> Of the 50 clients surveyed, 5 were hospitalized for a total of 27 days in the 30-day period.

Emergency Room (ER): Clients were asked how many times in the last 30 days they were seen in the ER. An ER visit was estimated to cost \$45.72.<sup>7</sup> Of the 50 clients surveyed, 8 were seen in the ER one time for a total of 8 visits.

Medical Office Visits: Clients were asked how many times in the last 30 days they were seen by a medical provider on an outpatient basis. A medical doctor appointment was estimated to cost \$50.43 for visits including diagnostic lab.<sup>8</sup> Of the 50 clients surveyed, a total of 97 medical office visits were made by 40 of the clients.

Dental Care Visits: Clients were asked how many times in the last 30 days they were seen for dental care. A dental care visit was estimated to cost \$125.16 per visit.<sup>9</sup> Of the 50 clients surveyed, a total of 20 dental care visits were made by 14 of the clients.

Counseling Visits: Clients were asked how many times in the last 30 days they were seen by a health care provider for other types of medical care. Some clients reported seeing a

counselor. A counseling visit was estimated to be \$17 per visit.<sup>10</sup> Of the 50 clients surveyed, a total of 7 counseling visits were made by 2 of the clients.

Other Medical Care Visits: Clients were asked how many times in the last 30 days they were seen by a health care provider for other types of medical care. Some clients reported receiving testosterone injections, radiation, dialysis, casts for broken bones, etc. The average cost of these visits was estimated to be \$184.<sup>11</sup> Of the 50 clients surveyed, a total of 24 other medical care visits were made by 8 of the clients. Table 2 summarizes the service visits and days and the estimated value of these services provided to the clients by their private health care plans.

**Table 2**  
**CARE/HIPP Client Survey Results (n=50)**  
**30 Days of Health Care**

Service Type	Number of Clients	Visits or Days	Value of Service per Visit or Day	Total Value of Services
Inpatient Care	5	27	\$1,102.00	\$29,754.00
ER	8	8	\$45.72	\$365.76
Medical Office	40	97	\$50.43	\$4,891.71
Dentist	14	20	\$125.16	\$2,503.20
Counseling	2	7	\$17.00	\$119.00
Other Medical Care	8	24	\$184.00	\$4,416.00
Total				\$42,049.67
Average per Surveyed Client				\$840.99

The prescription drugs identified on the 50 completed surveys averaged \$1,405 per client per month. When added to the average monthly medical care received by the same 50 clients (\$841), total health care services averaged \$2,246 per month per client. This average value of the private health care received by the 50 surveyed respondents, when applied to the 377 active CARE/HIPP clients, results in a program benefit of \$846,742 per month (Figure 2). Each client's private insurer provides this health care. If not for CARE/HIPP, this amount would be borne by a public health provider such as ADAP and/or Medi-Cal. This assumption is made because CARE/HIPP clients are disabled and unable to continue working. To qualify for the program they must also be unable to afford their private health insurance premiums. Because CARE/HIPP keeps their insurance premiums current, these individuals are not immediately compelled to apply for ADAP and other public programs.

**Figure 2**

Program Benefit Calculations

Based on the value of services received from private insurance

Value of monthly prescriptions per client:	\$1,405
Value of monthly health care per client:	<u>\$ 841</u>
Total	\$2,246

Monthly benefit (\$2,246) x **377** current clients = total monthly benefit of **\$846,742**

CARE/HIPP Program Costs

The costs to administer the CARE/HIPP program are staff, premiums paid to health care providers, and reimbursements to agencies for services including enrollment, recertification, and transitions to Medi-Cal/HIPP. The monthly CARE/HIPP costs to administer the program for the 377 currently active clients totaled \$99,258 (Figure 3).

- *CARE/HIPP Program Staff*

The program administration cost includes funding for five staff members. These are dedicated positions for administering the entire CARE/HIPP program. Staff funding, including salaries, benefits, and indirect costs, amounted to \$25,235 for one month.

- *Health Insurance Premiums*

Another program cost is the amount for premiums paid by the State to the third party providers of health care. Examples of third party providers include Kaiser Permanente, Blue Cross, and Blue Shield. The average monthly premium for the 50 surveyed clients was \$195, while the average monthly CARE/HIPP single coverage premium for all clients in 2000 was \$200. A report by The Henry J. Kaiser Family Foundation and Health Research and Educational Trust estimates monthly premiums for employer provided health insurance in California averaged \$192 in 2000 for single coverage.<sup>12</sup>

- *Month-End Agency Reimbursement Invoices (MEARI)*

The OA reimburses agencies for enrolling, recertifying, and assisting clients in transitions to the Medi-Cal/HIPP program. For fiscal year 2000/2001, the total MEARI payments were \$8,005. This annual expense was in support of 495 clients served by CARE/HIPP during this time period and equates to a monthly MEARI expense of \$508 for the 377 current clients.

**Figure 3**

Program Cost Calculations

Total monthly cost for staff:	\$ 25,235
Total monthly premium amounts (377 clients x \$195):	\$ 73,515
Total monthly reimbursement for enrollment services:	\$ 508
<b>Total monthly cost of the CARE/HIPP program:</b>	<b>\$ 99,258</b>

CARE/HIPP Program Net Benefits

We estimated that in a one-month period OA spent \$99,258 to administer the CARE/HIPP program. This amount, when deducted from the monthly value of medical care for the 377 CARE/HIPP clients, gives the net benefit of the program. Monthly interest, based on the effective yield from the California Department of Finance May 2001 Pooled Money Investment Board Report<sup>13</sup>, was applied to this benefit for a total net benefit of \$750,794 (Figure 4). The total net benefit is then divided by the cost of the program to determine a net benefit-to-cost ratio.

**Figure 4**

Net Benefit-to-Cost Ratio Calculation

Monthly Benefits (value of medical care)	\$ 846,742 *
Less CARE HIPP Program Cost	(\$ 99,258)**
=Net Benefit Before Interest	\$ 747,484
 +Interest (.05313/12) <sup>14</sup>	 \$ 3,309
=Total Net Benefit	\$ 750,794

**Net Benefit-to-Cost Ratio = \$750,794/\$99,258 = \$7.56**

\*Figure 2 \*\*Figure 3

*This equates to a savings of \$7.56 for every \$1 spent on the CARE/HIPP program. We estimated that approximately \$1,191,096 (\$99,258 x 12 months) is spent each year on CARE/HIPP. When multiplied by \$7.56 this spending provides the State with total annual savings of \$9 million.*

#### **IV. Summary**

A survey was developed to capture the health care services received by CARE/HIPP clients. The results of the survey when applied to the value of services received by their

privately funded health care providers gave an estimated program benefit of \$2,246 per month for each client served. This equates to \$846,742 averted Medi-Cal and ADAP health care expenses per month for the 377 CARE/HIPP clients who were active at the time of the study. The administration costs of the program include OA staff, premiums paid to health care providers, and reimbursements to agencies for services including enrollment, recertification, and transitions to Medi-Cal/HIPP. The monthly cost to administer the CARE/HIPP program is estimated to be \$99,258. A monthly net benefit of \$750,794 was estimated, including interest on the annual program savings, and the CARE/HIPP net benefit to cost ratio (\$7.56) was calculated by dividing the above net benefit by the cost of the program (\$750,794/\$99,258). There is a strong economic basis for funding the CARE/HIPP program as this analysis shows that for every dollar spent on the CARE/HIPP program there is \$7.56 in savings accrued each month the program is funded. When this ratio is applied to the estimated one-month administration cost of \$99,258, it indicates a yearly savings of over \$9 million resulting from the CARE/HIPP program.

## **V. Study Limitations**

The CARE/HIPP program is relatively small when compared to other Ryan White CARE Act programs such as ADAP or Consortia. At the time of our health care services survey, there were 377 clients enrolled in CARE/HIPP. Of these, 50 clients completed surveys. The value of medical care was based on these surveys. This value was included in estimating the net benefit-to-cost ratio. To provide a better sense of the variability in the medical care estimate, possibly resulting from the small sample size, we used a simulation approach to obtain a range for the calculated net benefit-to-cost ratio of \$7.56. This was done under the assumption that the monthly value of medical care received per client ( $\bar{x} = \$2,246$ ,  $s = \$3,240$ ) follows the log-normal distribution. Our analysis gave a net benefit-to-cost ratio interval between \$6.45 and \$8.10 saved for every dollar spent on the CARE/HIPP program.

The benefit of CARE/HIPP was based, in part, upon the value of prescription drugs received through the client's private insurance. If eligible, CARE/HIPP clients can enroll in ADAP and this program will pay the prescription drug co-payments charged to clients. Co-payments made by ADAP for CARE/HIPP clients were not included in the analysis. Nor were the prescription drug coverage limits for clients who had a yearly cap on their drug benefits. If included in the analysis, drug co-pays and capped drug coverage would decrease the benefit of the CARE/HIPP program. These factors were not considered significant as, if

included, they changed the benefit-to-cost ratio by only a few cents.<sup>15</sup> However, because co-payments are continuing to increase, and drug benefit caps are decreasing, future analysis on the cost effectiveness of this program could warrant the inclusion of co-payments and capped drug benefits.

The benefit calculations relied heavily upon self-reports of medical care and drugs received by the CARE/HIPP clients for the prior 30-day period. However, the literature - including some HIV-specific research - indicates that self-reports of use are accurate for making overall estimates.<sup>16</sup>

Finally, the prescription drug costs were based upon fixed prices for drugs. These prices did not reflect variations in prices among providers.

## **VI. Policy Implications**

The introduction of highly active combination antiretroviral therapy has been accompanied by increased concern about the costs of care for patients with HIV. However, some investigators have reported an association between the use of highly active antiretroviral therapy and reductions in overall health care costs.<sup>17</sup> A three-year longitudinal study beginning in January 1996 of 2,864 patients showed that when the licensure of the first protease inhibitor in 1996 began to transform treatment options for HIV infection, the estimate for the average direct expenditure for an American adult receiving regular care for HIV infection was about \$1,800 per month. Over the next three years the clinical status of many patients improved, and expenditures for clinical care declined. While pharmaceutical expenditures grew, hospitalization costs declined as the PLWH became healthier. Three years into the study data showed that, while total expenditures for treatment had not increased appreciably, hospital expenditures had risen to the mid 1996 level of \$594 per patient per month.<sup>18</sup> This increase in hospital services, which could reflect treatment failures, makes programs like CARE/HIPP more important as resources become stretched between programs.

The health care system today is burdened by an enormous cost to provide care for those stricken with HIV disease. The Ryan White CARE Act provides services to many of these individuals, but the resources are limited and can be spread only so far among those who need them. The CARE/HIPP program is a valuable device designed to help preserve scarce dollars by averting the health care costs of some PLWH from the public and passing this cost along to the health insurance industry. This study has shown that the dollars spent to administer the CARE/HIPP program save millions of ADAP dollars that can be used to provide

other PLWH with prescription services. While a small program in terms of clients served, the hopes of OA and the CARE/HIPP staff are that more individuals can be made aware of and enrolled in CARE/HIPP before losing their health benefits and turning to public programs for assistance with their medical care. In 1998, OA conducted a survey of CARE/HIPP benefit counselors to elicit information that could help identify issues with barriers to enrollment into CARE/HIPP. In this unpublished report, over 75% of the counselors surveyed (n=51) identified “lack of program awareness” as a significant barrier to enrollment in the CARE/HIPP program.<sup>19</sup> Because CARE/HIPP is a program that generates savings it should continue to be included in the suite of services provided by the Ryan White CARE Act and expanded to include as many eligible participants as possible.



## References

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- <sup>1</sup> Legislative Analyst's Office Report, A model for health coverage of low-income families, June 1999.
- <sup>2</sup> Cost Benefit Analysis Guide for NIH Projects, Office of the Deputy Chief Information Officer, Center for Information Technology, National Institutes of Health, Department of Health and Human Services, May 1999.
- <sup>3</sup> California Department of Health Services, Office of AIDS, CARE/HIPP Client Tracking and Reporting System.
- <sup>4</sup> The source of information for estimating the cost was the ADAP listing from First Data Bank current drug pricing. First Data Bank is the world's leading supplier of healthcare knowledge bases, supplying drug knowledge to over 40,000 pharmacies, 4,000 hospitals, all 50 state Medicaid programs, and virtually all major vendor and private drug benefit programs. This report lists each drug and the per unit price.
- <sup>5</sup> California Department of Health Services, Office of AIDS, AIDS Drug Assistance Program, 2001.
- <sup>6</sup> Table 8, Medi-Cal Program Average Cost per Service for Selected Services, Calendar Year 1999, published by California Department of Health Services, Medical Care Statistics Section, inflated to 2001 dollars using the federal raw inflation indices 1.025 for base year 1999.
- <sup>7</sup> California Department of Health Services, Medical Care Statistics Section, 2000 Medi-Cal Services and Expenditures, Month of Payment Report, inflated to 2001 dollars.
- <sup>8</sup> California Department of Health Services, Medical Care Statistics Section, Semi-Annual AIDS Related Medical Expenditures, July – December 2000.
- <sup>9</sup> California Department of Health Services, Medical Care Statistics Section, Semi-Annual AIDS Related Medical Expenditures, July – December 2000.
- <sup>10</sup> Table 8, Medi-Cal Program Average Cost per Service for Selected Services, Calendar Year 1999, published by California Department of Health Services, Medical Care Statistics Section, inflated to 2001 dollars using the federal raw inflation indices 1.025 for base year 1999.
- <sup>11</sup> California Department of Health Services, Medical Care Statistics Section. 2000 Medi-Cal Services and Expenditures, Month of Payment Report, inflated to 2001 dollars.
- <sup>12</sup> The Henry J. Kaiser Family Foundation and Health Research and Educational Trust, California Employer Health Benefits Survey, March 2001.
- <sup>13</sup> Guidelines for Project Evaluation, United Nations Project Formulation and Evaluation Series, No. 2, pp67-68.
- <sup>14</sup> May 2001, California State Treasury Department, Investment Division, Pooled Money Investment Board, Effective Yield. Based on State portfolio, which includes treasuries,

mortgages, agencies, CD's, bank notes, time deposits, banker's acceptances, commercial paper, corporate bonds, and loans.

<sup>15</sup> State Office of AIDS, AIDS Drug Assistance Program, 2001.

<sup>16</sup> Weissman JS, Levin K, Chasan-Taber S, Massagli MP, Seage GR III, Scampini L. The validity of self-reported health-care utilization by AIDS patients. *AIDS* 1996;10:775-83.

<sup>17</sup> Gebo KA, Chaisson RE, Folkemer JG, Bartlett JG, Moore RD. Costs of HIV medical care in the era of highly active antiretroviral therapy. *AIDS* 1999;13:963-9.

<sup>18</sup> Bozzette SA, Goeffrey J, McCaffrey DF, Leibowita AA, Morton SC, Berry SH, Rastegar A, Timberlake D, Shapiro MF, Goldman DP. Expenditures for the care of HIV-infected patients in the era of highly active antiretroviral therapy. *NEJM* 2001; 344:817-823.

<sup>19</sup> Durham R, Chan D. California Department of Health Services, Office of AIDS. CARE/HIPP Benefit Counselor Survey. Oct. 1998, Unpublished.

## **Appendix A**

### **CARE/HIPP Program Client Health Care Services Survey and Informed Consent**

## CARE/HIPP Program Client Health Care Services Survey

### INSTRUCTIONS

The CARE/HIPP Client Services Questionnaire should be completed for all CARE/HIPP clients seen (new, current, dis-enrolled) June through August 31, 2000. Please ask the client to first read and sign the informed consent, and then ask the questions contained on the two-page questionnaire. If the client is interviewed via telephone, the benefit counselor can sign the informed consent for the client once they are informed of its contents. The categories of information requested are *Inpatient hospital services; Emergency Room (ER) visits; Outpatient services; Dental care visits; Prescribed medications*. The OA will compensate clients for their time by sending \$20 food gift certificates to the benefit counselors for distribution to clients who participated.

#### Survey Questions:

1. If the client was hospitalized in the last 30 days, please check "YES" and indicate the approximate number of days spent in the hospital. If not, check "NO" and continue to the next question.
2. If the client was seen in the ER in the last 30 days, please check "YES" and indicate the approximate number of times. Do not include ER visits that resulted in admission to the hospital, as those are captured in Question 1. If not, check "NO" and continue to the next question.
3. If the client was seen in a primary care physician's office in the last 30 days, please check "YES" and indicate the approximate number of times seen. If any visits were for specialized medical care please indicate the type and frequency in the space given. If not, check "NO" and continue to the next question.
4. If the client was seen by a dentist in the last 30 days, please check "YES" and indicate the approximate number of times seen. If not, check "NO" and continue to the next question.
5. If the client received any other types of health care services (i.e., home health, hospice, etc.) in the last 30 days, please check "YES" and indicate the type of service and the number of times seen. If not, check "NO" and continue to the next question.
6. If the client's insurance coverage includes share of cost payments please indicate the amounts for this in the appropriate space.
7. Pharmaceuticals - If the client has been prescribed medication in the last 30 days, check the space that identifies the type of drug and indicate the daily dosage (strength). Also note how many days the drug was taken in the prior 30-day period. A reference guide is attached to help identify generic and brand names of HIV related drugs and the recommended dosage.

Example:

800 mg of Indinavir, twice a day for the last 20 days = ✓ Indinavir      Dsg 1600 mg per day 20 days

***NOTE: Be sure to also include all prescribed drugs, even those taken for non-HIV related conditions (i.e., allergies, etc.).***

**When completed please include the survey and informed consent with your regular submittal to OA. If you have any questions please call Dixie Chan, Office of AIDS at (916) 322-4634.**

**CARE/HIPP Program Client Health Care Services Survey  
Inpatient/Outpatient/ER Care and Prescription Drugs**

**1. Has the client been hospitalized in the last 30 days for any reason?**

NO \_\_\_\_\_ (If "NO" please go to question #2).

YES \_\_\_\_\_

Approximately how many days was the client in the hospital in the last 30 day period? \_\_\_\_\_

**2. Has the client visited the ER (not resulting in admission) in the last 30 days for any reason?**

NO \_\_\_\_\_ (If "NO" please go to question #3).

YES \_\_\_\_\_

Approximately how many times was the client seen in the ER in the last 30 day period? \_\_\_\_\_

**3. Has the client been seen by a medical doctor, nurse practitioner, or physician's assistant in their office in the last 30 days for any reason?**

NO \_\_\_\_\_ (If "NO" please go to question #4).

YES \_\_\_\_\_

Approximately how many times did the client go for a medical care office visit? \_\_\_\_\_ (times)

If any of the above visits were for specialized medical services, i.e., radiation, chemotherapy, etc., please indicate type \_\_\_\_\_, and frequency \_\_\_\_\_ (times in the last 30 days).

**4. Has the client been seen for dental care in the last 30 days?**

NO \_\_\_\_\_ (If "NO" please go to question #5).

YES \_\_\_\_\_

Approximately how many times did the client go for a dental visit? \_\_\_\_\_ (times)

**5. Has the client received other types of health care services in the last 30 days? (i.e., home health, hospice, etc.)?**

NO \_\_\_\_\_ (If "NO" please go to question #6).

YES \_\_\_\_\_ (Please identify the type(s) of service(s) and number of times visited in the last 30 days).

Service \_\_\_\_\_ (times)

Service \_\_\_\_\_ (times)

Service \_\_\_\_\_ (times)

Service \_\_\_\_\_ (times)

Service \_\_\_\_\_ (times)

Service \_\_\_\_\_ (times)

**6. If the client's insurance coverage has any of the following prescription drug share of cost amounts, please complete. (If not, please go to question #7.)**

Prescription drug co-pay amount: \$ \_\_\_\_\_

Yearly prescription benefit cap amount: \$ \_\_\_\_\_

Percentage of prescription costs paid by client: % \_\_\_\_\_

7. Check all prescribed medication taken in the last 30 days and note the daily dosage and number of days taken for the same period. Space is provided to write in prescription drugs not listed. **NOTE: Include all prescribed drugs, even those not taken for HIV disease (i.e. allergies, etc.).**

NUCLEOSIDE ANALOGS:

_____	Combivir (AZT+3TC)	Dsg_____	per day _____	days _____
_____	Stavudine (d4T)	Dsg_____	per day _____	days _____
_____	Lamivudine (3TC)	Dsg_____	per day _____	days _____
_____	Didanosine (ddl)	Dsg_____	per day _____	days _____
Other _____		Dsg_____	per day _____	days _____

PROTEASE INHIBITORS:

_____	Indinavir	Dsg_____	per day _____	days _____
_____	Ritonavir	Dsg_____	per day _____	days _____
_____	Saquinavir	Dsg_____	per day _____	days _____
_____	Nelfinavir	Dsg_____	per day _____	days _____
Other _____		Dsg_____	per day _____	days _____

NNRTIs:

_____	Nevirapine	Dsg_____	per day _____	days _____
_____	Efavirenz	Dsg_____	per day _____	days _____
Other _____		Dsg_____	per day _____	days _____

ANTI-FUNGAL:

_____	Clotrimazole	Dsg_____	per day _____	days _____
_____	Fluconazole	Dsg_____	per day _____	days _____
_____	Ketoconazole	Dsg_____	per day _____	days _____
_____	Flucytosine	Dsg_____	per day _____	days _____
Other _____		Dsg_____	per day _____	days _____

WASTING SYNDROME:

_____	Megestrol	Dsg_____	per day _____	days _____
_____	Testosterone	Dsg_____	per day _____	days _____
_____	Nandrolone	Dsg_____	per day _____	days _____
Other _____		Dsg_____	per day _____	days _____

PAIN RELIEVER:

_____	Ibuprofen	Dsg_____	per day _____	days _____
_____	Morphine	Dsg_____	per day _____	days _____
_____	Acetaminophen-codeine	Dsg_____	per day _____	days _____
_____	Acetaminophen-hydrocodone codeine	Dsg_____	per day _____	days _____
_____	Meperidine	Dsg_____	per day _____	days _____
Other _____		Dsg_____	per day _____	days _____

OTHER DRUGS:

_____	SMX/TMP	Dsg_____	per day _____	days _____
_____	Acyclovir	Dsg_____	per day _____	days _____
_____	Gancyclovir	Dsg_____	per day _____	days _____
_____	Azithromycin	Dsg_____	per day _____	days _____
_____	Filgastrim	Dsg_____	per day _____	days _____
_____	Clarithromycin	Dsg_____	per day _____	days _____
Other _____		Dsg_____	per day _____	days _____
Other _____		Dsg_____	per day _____	days _____
Other _____		Dsg_____	per day _____	days _____

Thank you for taking the time to complete this survey. Please FAX this and the informed consent to the OA on or before September 15, 2000. For more information call Dixie Chan, OA at (916) 322-4634.

## CARE/HIPP Program Client Health Care Services Survey Informed Consent

**Purpose:** The Office of AIDS is currently examining the possibility of expanding the services of the CARE/HIPP program. This expansion may allow more individuals the opportunity to participate. To determine any savings that may result from expanding CARE/HIPP it is necessary to first examine the current program costs and benefits.

This is a research study and the survey being conducted today is designed to gather information about your medical care services and prescription drugs. This will help to determine the savings (benefits) that result from third party health insurance payers funding a client's medical care and drugs.

**Procedures:** Your CARE/HIPP benefit counselor will ask you a few questions about your medical care visits and prescription drugs taken in the last 30-day period. It should take approximately 20 minutes to complete. No other participation is requested. A \$20 food voucher will be provided to compensate you for taking the time to participate in this study.

**Risks:** There is a minimal risk that the Office of AIDS staff could determine the identity of a person responding to this survey. However, it is the expressed intent of the Office of AIDS and the CARE/HIPP program to maintain the highest possible level of confidentiality. All information gathered from this survey will be kept confidential and only summary information, with no client identification, will be used in the final report. Refusal to participate will in no way impact your enrollment in the CARE/HIPP program.

**Benefits:** There is no direct benefit to you from this survey; however, this study may help to expand the coverage of the CARE/HIPP program allowing more individuals the opportunity to enroll.

**Alternative Procedures:** There are no alternatives to this survey as participation is completely voluntary and refusal to participate will involve no penalty whatsoever or loss of CARE/HIPP program benefits.

**Confidentiality of Records:** It is the expressed intent of the Office of AIDS and the CARE/HIPP program to maintain the highest possible level of confidentiality. All information gathered from this survey will be kept confidential and only summary information, with no client identification, will be used in the final report.

**Compensation:** If you chose to participate in this survey you will be given a \$20 food voucher to compensate you for your time. Refusal to participate will not impact your enrollment in the CARE/HIPP program.

**Injury:** No injury should result to you from answering the questions on this survey.

**Questions:** If you have any questions relating to this research study please call Dixie L. Chan, Research Program Specialist, at (916) 322-4634. If necessary, you can call me collect.

**Voluntary Participation:** The interview will be conducted by a CARE/HIPP benefit counselor and should take approximately 20 minutes to complete. Refusal to participate will not impact your CARE HIPP benefits.

**Research Participant's Bill of Rights:** Attached is a copy of the Research Participant's Bill of Rights. This and a copy of this informed consent will be provided to you.

**Consent:** I have read the above information and I give my consent to participate in this CARE/HIPP research study.

\_\_\_\_\_  
CARE/HIPP Client Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
CARE/HIPP Benefit Counselor Signature

\_\_\_\_\_  
Date

## **Appendix B**

### **Type and Cost of Prescription Drugs Taken by Surveyed CARE/HIPP Clients**



**HIV/AIDS Treatment Prescriptions  
CARE/HIPP Client Survey (n=50)  
Monthly Cost for Prescription Drugs**

<b>Drug Type</b>	<b>Generic Name</b>	<b>Clients</b>	<b>Monthly Cost</b>
<b>Nucleoside Analogs</b>	Abacavir	9	\$3,846
	AZT+3TC	15	\$8,689
	Didanosine	5	\$989
	Lamivudine (3TC)	16	\$5,009
	Lopinavir/Ritonavir	1	\$321
	Stavudine (D4T)	22	\$6,496
<b>Protease Inhibitors</b>	Amprenavir	3	\$833
	Indinavir	10	\$3,676
	Nelfinavir	4	\$2,796
	Ritonavir	11	\$3,218
<b>NNRTIs</b>	Saquinavir	11	\$4,376
	Efavirenz	10	\$3,909
	Nevirapine	13	\$3,933
<b>Anti-Fungal</b>	Clotrimazole	2	\$158
	Fluconazole	10	\$2,790
	Nystatin	1	\$12
<b>Wasting Syndrome</b>	Dronabinol	2	\$726
	Nandrolone	3	\$184
<b>Pain Relief</b>	Oxandrolone	2	\$1,969
	Serostim	1	\$3,780
	Testosterone	8	\$834
	Belladonna alkaloids	1	\$5
	Hydrocodone Bitartrate	4	\$98
	Ibuprofen	5	\$41
	Methadone hcl	1	\$3
	Naproxen	2	\$56
	Oxycodone hcl	3	\$63
	Alprazolam	2	\$128
<b>Anti-Anxiety</b>	Buspirone hcl	1	\$78
	Lorazepam	2	\$526
<b>Antibiotic</b>	Ciprofloxacin hcl	2	\$138
	Amitriptyline hcl	4	\$156
<b>Anti-Depressant</b>	Bupropion Hydrochloride	4	\$182
	Fluoxetine hcl	2	\$250
	Paroxetine hcl	6	\$615
	Sertraline hcl	2	\$149
	Loperamide hcl	1	\$10
<b>Anti-Diarrheal</b>	Acyclovir	16	\$1,231
	Valacyclovir hcl	2	\$248
<b>-continued-</b>			

Drug Type	Generic Name	Clients	Monthly Cost
<b>Host Factor Inhibitor</b>	Hydroxyurea	3	\$213
	Azithromycin	5	\$1,954
	Clarithromycin	1	\$17
<b>MAC</b>	Ethambutol hcl	3	\$446
	Dapsone	3	\$18
	SMX/TMP	12	\$1,032
<b>PCP</b>	Isoniazid	3	\$167
<b>TB</b>	Pyrazinamide	2	\$135
	Rifampin/Isoniazid	1	\$73
	1% hydrocortisone	1	\$61
<b>Other</b>	2% Nisoral	1	\$13
	Amylase/Lipase/Protease	1	\$179
	Atenol	2	\$41
	Cabergoline	1	\$120
	Calcium Carbonate	2	\$23
	Cetirizine hcl	2	\$178
	Choline Magtrisal	1	\$22
	Cimetidine	1	\$89
	Claritin d	1	\$43
	Diazepam	1	\$17
	Dicyclomine hcl	1	\$192
	Diphenoxylate hcl	3	\$166
	Fenofibrate	1	\$25
	Flunisolide	1	\$45
	Fluticasone propionate	1	\$110
	Gabapentin	7	\$357
	Gemfibrozil	1	\$89
	Glutathione	1	\$69
	Hydroxyzine hcl	1	\$56
	Mefloquine hcl	1	\$39
	Omeprazole	5	\$1,224
	Oxymetholone	1	\$79
	Prochlorperazine edisyl	2	\$99
	Pyridoxine/b6	2	\$4
	Quinine Sulfate	2	\$7
	Streptomycin	1	\$179
	Terbinafine hcl	1	\$16
	Trazodone hcl	3	\$44
	Triazolam	1	\$19
	Valsartan/Hydrochloroth	1	\$48
	<b>Total monthly cost *</b>		<b>\$70,229</b>
	<b>Divided by 50 surveyed clients =</b>		<b>\$1,405</b>

\*Total monthly cost for all 50 clients totals \$70,229, giving an average of \$1,405 per client in drug costs for a one-month period.